REMARKS

The Office Action mailed June 15, 2004, has been reviewed and the Examiner's comments have been carefully considered. Claims 1, 4-7, and 11-14 have been amended. Claim 3 has been canceled. In view of the foregoing amendments and the reasons that follow, claims 1, 2, and 4-14 are pending and are submitted for reconsideration.

Additionally, Applicants appreciate the Examiner's acknowledgment of Applicants' claim for foreign priority and receipt of the priority documents; acceptance of the drawings filed October 2, 2003; and consideration of the IDS filed October 2, 2003, and the IDS filed December 31, 2003.

35 U.S.C. § 102 Rejections

Claims 1-3, 8-11, 13, and 14 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,065,459 (Stevens). Claims 1, 2, 13, and 14 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,662,077 (Boswell). The rejections should be withdrawn because the cited references do not disclose, teach, or suggest all the features of the claimed invention.

For example, neither Stevens nor Boswell discloses, teaches, or suggests an intake apparatus having "a flow throttling valve to produce a low pressure region in the intake port" as recited in claims 1 and 13. Similarly, neither reference discloses, teaches, or suggests an intake apparatus having "second means for defining an intake recirculation passage" where the second means "has a second state not to strengthen the intake air stream in the first region of the intake port" as recited in claim 14.

Stevens

In contrast, Stevens discloses a device that reverses the direction of backward flowing gas in an intake stream by 180 degrees. The device includes a long flared pipe 7 attached over a short flared pipe 9 that is laminated to a gasket 5. (Stevens at col. 5, lines 23-32.) As shown in Fig. 4, when the device is installed in an intake port, a restriction point 16 is formed by the small flared pipe 9. "[W]hen the intake charge is sped up going over the small flared pipe's flare restriction point, (16) . . . a super strong suction at (14) [is caused] insuring a strong vacuum draw at (15)." (Stevens at col. 5, lines 34-38.) As shown in Fig. 4, backward flowing gas is drawn into the device at the point 15, travels through a 180 degree turnaround 12, and then joins an intake flow fill stream 17 at the point 14. As a result, the intake flow fill

stream 17 is strengthened so that the cylinder is packed "with a high velocity, higher pressure fill-charge." (Stevens at col. 5, lines 59-62; col. 8, lines 20-27.) Thus, Stevens discloses a device that includes a restriction point 16 for creating a low pressure region and that strengthens an intake air stream in an intake port.

Stevens, however, does not disclose a flow throttling valve to produce a low pressure region in the intake port as called for in claims 1 and 13. In contrast, the restriction point 16 of Stevens is fixed and non-adjustable. As explained in Stevens, the long pipe 7 is spot welded to the short pipe 9, and the short pipe 9 is laminated to the gasket 5, which is fixed between the cylinder head and the intake manifold 6. (Stevens at col. 4, lines 47-48; col. 5, lines 30-31; col. 9, lines 13-17; Fig. 4.) Similarly, because the restriction point 16 is fixed and non-adjustable, the device of Stevens has only one operational state. In other words, the device of Stevens operates only to strengthen the intake air stream. Thus, Stevens does not disclose a device having "a second state not to strengthen the intake air stream" as called for in claim 14. For at least these reasons, Stevens does not disclose all the features of claims 1, 13, and 14. Reconsideration and withdrawal of the rejection of claims 1, 13, and 14 as anticipated by Stevens are respectfully requested.

Claims 2 and 6-11 depend from claim 1 and are allowable therewith for at least the reasons set forth above without regard to further patentable subject matter contained therein. Reconsideration and withdrawal of the rejection of claims 2 and 8-11 as anticipated by Stevens and the objection to claims 6 and 7 are respectfully requested.

Boswell

Similarly, Boswell discloses a device for receiving a portion of an intake charge flow that contains elements of fuel and air, mixing the elements of fuel and air, and reintroducing the mixture into the intake charge flow stream in a vaporized condition. (Boswell at col. 10, lines 45-52.) The device of Boswell also captures backward flowing gas (reversion) and redirects the reversion into the intake charge flow stream. (Boswell at col. 13, lines 50-52; Fig. 1.) As shown in Fig. 8, the device includes orifices 98, 94, and 104 connected to an annular passage 86 by lateral passages 96, 100, and 106, respectively. When an intake charge flows over the orifices 94, 98, and 104, a negative pressure condition is generated at each orifice. (Boswell at col. 13, lines 4-9, 41-43.) "[T]he energy of the negative pressure induced flow condition, combined with that of the reversion, mixes and drives or propels the elements of intake charge, raw fuel, and reversion through annular connecting passage 86, though

lateral connecting passages 96, 100, and 106, and out through orifices 94, 98, and 104 into passage 18." (Boswell at col. 13, lines 53-58.) The "newly vaporized charge" enters the combustion chamber resulting in "greater horsepower sooner and . . . a higher maximum horsepower." (Boswell at col. 11, lines 19-28.; col. 13, lines 60-64; col. 14, lines 43-47.) Thus, Boswell discloses a device that includes orifices 94, 98, and 104 for creating a low pressure region and that strengthens an intake air stream in an intake port.

Boswell, however, does not disclose a flow throttling valve to produce a low pressure region in the intake port as called for in claims 1 and 13. In contrast, the low pressure condition of Boswell is produced by flow over orifices 94, 98, and 104. Although Boswell discloses a carburetor 34 including a throttle member 46, the throttle member 46 is a conventional throttle member that regulates the introduction of fuel into the air stream flowing through the carburetor 34. (Boswell at col. 11, lines 50-58.) Nothing in Boswell teaches or suggests that the throttle member 46 produces the low pressure region at the orifices 94, 98, and 104. Additionally, because the orifices 94, 98, and 104 are non-adjustable, the device of Boswell has only one operational state. In other words, the device of Boswell operates only to strengthen the intake air stream. Thus, Boswell does not disclose a device having "a second state not to strengthen the intake air stream" as called for in claim 14. For at least these reasons, Boswell does not disclose all the features of claims 1, 13, and 14. Reconsideration and withdrawal of the rejection of claims 1, 13, and 14 as anticipated by Boswell are respectfully requested.

Claims 2 and 6-11 depend from claim 1 and are allowable therewith for at least the reasons set forth above without regard to further patentable subject matter contained therein. Reconsideration and withdrawal of the rejection of claim 2 as anticipated by Boswell and the objection to claims 6 and 7 are respectfully requested.

Allowable Subject Matter

Claims 4-7 and 12 are objected to as being dependent on a rejected base claim. Applicants appreciate the indication that claims 4-7 and 12 contain allowable subject matter. As suggested by the Examiner, claims 4, 5, and 12 have been amended to include the subject matter of the base claim and any intervening claims. In view of the foregoing amendments, Applicants submit that claims 4, 5, and 12 are in condition for allowance. Applicants

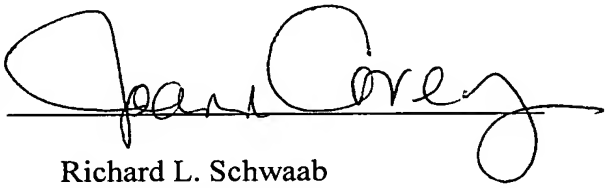
respectfully request that the Examiner allow claims 4, 5, and 12, all of which are directed to subject matter that the PTO has indicated to be patentable.

Conclusion

In view of the foregoing amendments and remarks, Applicants believe that the application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. If there are any questions regarding the prosecution of this application, the Examiner is invited to contact the undersigned attorney at the phone number listed below.

Respectfully submitted,

Date 10/14/04

By 

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

Richard L. Schwaab
Attorney for Applicant
Registration No. 25,479

Joann K. Corey
Attorney for Applicant
Registration No. 52,769

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